CERAMIC DISC CAPACITORS

CLASS 1 (TEMPERATURE COMPENSATING)

■ SPECIFICATIONS

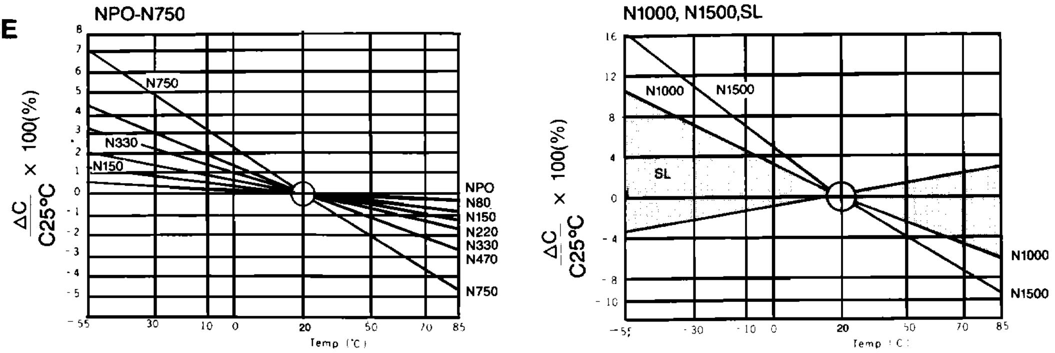
1. Standard: JIS C6423 5102 EIA RS-198C
2. Class: Class 1
3. Temperature range: −55°C ~ +125°C
4. Capacitance: Shall be within tolerance when measured at a frequency of 1MHz.
5. Dielectric strength: Capacitors shall withstand 3 times the rated working voltage for 1 - 5 seconds.
6. Insulation resistance: Value obtained will be 10,000 MΩ minimum when measured by applying the rated working voltage for 1 minute.
7. Q: When measured in the same method as capacitance, the Q value will be as follows:
   (C = capacitance in pf)

NPO - N750 & SL	N1000,N1500
Cap. < 30 pF, Q ≥ 400+20 C	Cap. < 30 pF, Q ≥ 200+10 C
Cap. ≥ 30 pF, Q ≥ 1000	Cap. ≥ 30 pF, Q ≥ 500

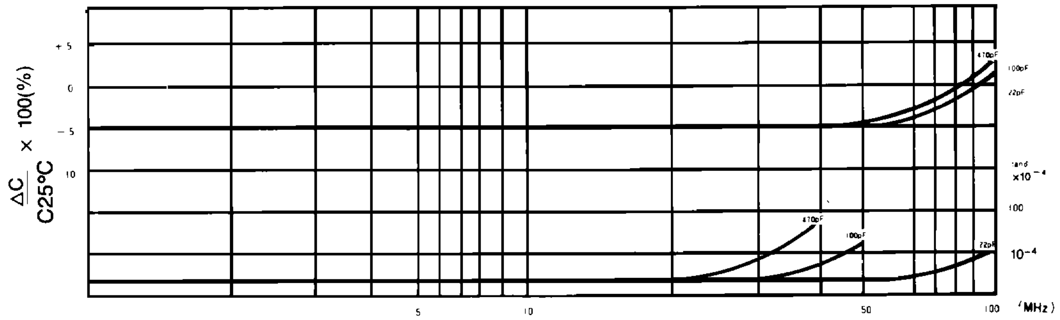
8. Temperature coefficient: Shall not exceed limits defined in graphs below. SL: P350-N1000 PPM/°C
9. Values available in E24 series over 10 pF, under 10 pF consult KCK.

■ PERFORMANCE

(CAPACITANCE VS. TEMPERATURE)



(CAPACITANCE VS. FREQUENCY)



■ MARKING

Diameter	5ϕ			6ϕ			7ϕ and above		
Items \ T.C.	C~U	V,W	SL	C~U	V,W	SL	C~U	V,W	SL
T.C. color code	•			•					
T.C. (e.g.: V,W)		•			•				
T.C. (NPO, N1500)							•	•	
Capacitance	•	•	•	•	•	•	•	•	•
Cap. Tol.				•	•	•	•	•	•

Note:

1. Capacitance marking: values less than 100pF marked with actual capacitance, 100 pF and over using 3 digits. (e.g. 10 pF −10, 1000 pF −102)
2. Working voltage: 50V−marked with a "−" under capacitance, 500V−no marking. Other voltages will be marked.
3. Brand name will be marked on the following: 50 V 6mm & above, 100V: 8mm SL, 9mm & above 500V: All parts are marked, 1KV & over: 9.5mm & above.
4. TC: Color Code or Symbol

KCK STANDARD

T.C.	Color	T.C.	Color	T.C.	Color
NPO (C)	Black	N220(R)	Yellow	N470(T)	Blue
N80 (L)	Red	N330(S)	Green	N750(U)	Violet
N150(P)	Orange				

■ KCK CATALOG NUMBERING SYSTEM

E 121 J C — RDS

OPTIONAL LEAD STYLE / TAPING...(see pages 7 & 8)
TEMPERATURE CHARACTERISTIC...C=NPO, L=N80, P=N^{5}150, R=N220, S=N330, T=N470, U=N750, V=N1000, W=N1500, G=SL
TOLERANCE...C= ± .25pF, D= ± 0.5pF, F= ± 1.0pF, J= ± 5%, K= ± 10%
CAPACITANCE... 3 digit system in pF
VOLTAGE... E=50V, H=100V, M=500V, P=1KV, S=2KV, T=3KV

CERAMIC DISC CAPACITORS

CLASS 1

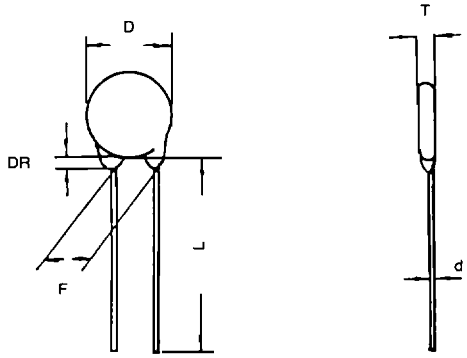
■ CAPACITANCE RANGE (pF)

	DIMENSIONS mm (inch)		CAPACITANCE RANGE (pF)									
	D MAX.	F	NPO (C)	N80 (L)	N150 (P)	N220 (R)	N330 (S)	N470 (T)	N750 (U)	N1000 (V)	N1500 (W)	SL
50V	4.0 (.157)	2.5 (.098)	1 ~ 24	1 ~ 12	1 ~ 24	1.5 ~ 27	2 ~ 27	2 ~ 33	3 ~ 43	6 ~ 43	7 ~ 56	.5 ~ 75
	5.0 (.197)	2.5 (.098)	27 ~ 33	13 ~ 20	27 ~ 33	30 ~ 39	30 ~ 39	-	47 ~ 62	47 ~ 68	62 ~ 91	82 ~ 120
	5.0 (.197)	5.0 (.197)	36 ~ 39	22	36 ~ 39	43	43 ~ 47	36 ~ 56	68 ~ 82	-	-	-
	6.0 (.236)	5.0 (.197)	43 ~ 56	24 ~ 33	43 ~ 56	47 ~ 68	51 ~ 68	62 ~ 82	91 ~ 120	75 ~ 100	100 ~ 130	130 ~ 180
	7.0 (.276)	5.0 (.197)	62 ~ 82	36 ~ 47	62 ~ 91	75 ~ 100	75 ~ 100	91 ~ 120	130 ~ 180	110 ~ 150	150 ~ 200	200 ~ 270
	8.0 (.315)	5.0 (.197)	91 ~ 120	51 ~ 68	100 ~ 130	110 ~ 130	110 ~ 150	130 ~ 160	200 ~ 240	160 ~ 220	220 ~ 270	300 ~ 390
	9.0 (.354)	5.0 (.197)	130 ~ 160	75 ~ 91	150 ~ 160	150 ~ 180	160 ~ 200	180 ~ 240	270 ~ 330	240 ~ 300	300 ~ 390	430 ~ 510
	9.5 (.374)	5.0 (.197)	180	100	180	-	220	-	-	330	430	560
	10.5 (.413)	5.0 (.197)	200 ~ 220	110 ~ 130	200 ~ 240	200 ~ 240	240 ~ 270	270 ~ 330	360 ~ 470	360 ~ 390	470 ~ 510	620 ~ 750
	12.0 (.472)	5.0 (.197)	240 ~ 300	150 ~ 180	270 ~ 330	270 ~ 360	300 ~ 390	360 ~ 430	540 ~ 680	430 ~ 560	560 ~ 750	820 ~ 1000
100V	6.0 (.236)	6.4 (.250)	1 ~ 30	1 ~ 16	1 ~ 30	1 ~ 33	2 ~ 36	2.0 ~ 43	1.5 ~ 62	1.5 ~ 51	1.5 ~ 68	0.75 ~ 100
	6.0 (.236)	6.4 (.250)	33 ~ 47	18 ~ 27	33 ~ 47	36 ~ 56	39 ~ 56	47 ~ 68	68 ~ 100	56 ~ 82	75 ~ 110	110 ~ 150
	7.0 (.276)	6.4 (.250)	51 ~ 68	-	51 ~ 68	62 ~ 82	62 ~ 82	75 ~ 100	110 ~ 150	-	-	160 ~ 220
	8.0 (.315)	6.4 (.250)	75 ~ 100	30 ~ 56	75 ~ 100	91 ~ 110	91 ~ 120	110 ~ 130	160 ~ 200	91 ~ 180	120 ~ 240	240 ~ 330
	9.0 (.354)	6.4 (.250)	-	-	-	120 ~ 150	-	150 ~ 200	-	-	-	360 ~ 430
	9.5 (.374)	6.4 (.250)	110 ~ 150	62 ~ 82	110 ~ 150	-	130 ~ 180	-	220 ~ 300	200 ~ 240	270 ~ 330	470
	10.5 (.414)	6.4 (.250)	-	-	160 ~ 200	160 ~ 200	-	-	330 ~ 390	-	-	510 ~ 620
	12.0 (.472)	6.4 (.250)	160 ~ 240	91 ~ 150	220 ~ 270	220 ~ 300	200 ~ 300	220 ~ 360	430 ~ 510	270 ~ 430	360 ~ 560	680 ~ 820
500V	6.0 (.236)	6.4 (.250)	1 ~ 30	1 ~ 16	1 ~ 30	1 ~ 33	2 ~ 36	2 ~ 43	1.5 ~ 62	1.5 ~ 51	1.5 ~ 68	0.75 ~ 100
	7.4 (.291)	6.4 (.250)	33 ~ 47	18 ~ 24	33 ~ 47	36 ~ 51	39 ~ 56	47 ~ 62	68 ~ 100	56 ~ 82	75 ~ 100	110 ~ 150
	9.5 (.375)	6.4 (.250)	51 ~ 82	27 ~ 51	51 ~ 91	56 ~ 100	62 ~ 100	68 ~ 130	100 ~ 180	91 ~ 160	110 ~ 200	160 ~ 270
	11.0 (.433)	6.4 (.250)	91 ~ 120	56 ~ 68	100 ~ 130	110 ~ 130	110 ~ 150	150 ~ 180	200 ~ 270	180 ~ 220	220 ~ 300	300 ~ 390
	12.5 (.492)	6.4 (.250)	130 ~ 160	75 ~ 100	150 ~ 180	150 ~ 200	160 ~ 200	200 ~ 240	300 ~ 360	240 ~ 300	330 ~ 390	430 ~ 510
	14.5 (.570)	9.5 (.375)	180 ~ 240	110 ~ 130	200 ~ 240	220 ~ 270	220 ~ 300	270 ~ 360	390 ~ 510	330 ~ 430	430 ~ 560	560 ~ 750
	16.3 (.642)	9.5 (.375)	270 ~ 330	150 ~ 180	270 ~ 330	300 ~ 360	330 ~ 390	390 ~ 470	560 ~ 680	470 ~ 560	620 ~ 750	820 ~ 1000
	19.0 (.748)	9.5 (.375)	360 ~ 430	200 ~ 240	360 ~ 470	390 ~ 510	430 ~ 510	510 ~ 620	750 ~ 910	620 ~ 750	820 ~ 1000	-

■ STANDARD CAPACITANCE TOLERANCE

.5~5pF C(± .25pF, D(±.5pF)
5.1~10pF; D(± .5pF), F(±1pF)
Over 10pF; J(±5%), K(±10%)

■ DIMENSIONS



	DIMENSIONS mm (inch)			
WVDC	DR	L	T	d
50V	2.0 MAX (.079)	25.0 MIN (1.0)	3.0 MAX (.118)	d=0.4 (.015) F=2.5 mm (.098) d=0.5 (.0196) F=5.0 mm (.197)
100V	2.0 MAX (.079)	25.0 MIN (1.0)	3.0 MAX (.118)	AWG#22 (.025)
500V	3.0 MAX (.118)	25.0 MIN (1.0)	4.0 MAX (.157)	AWG#22 (.025)
1KV	4.0 MAX (.157)	25.0 MIN (1.0)	4.5 MAX (.177)	AWG#22 (.025)
2KV	4.0 MAX (.157)	25.0 MIN (1.0)	5.0 MAX (.196)	AWG#20 (.032)
3KV	4.0 MAX (.157)	25.0 MIN (1.0)	6.0 MAX (.236)	AWG#20 (.032)

	DIMENSIONS mm (inch)		CAPACITANCE RANGE (pF)	
	D (MAX)	F ± 1.5	NPO	SL
1000V	6.0 (.236)	6.4 (.25)	1 ~ 22	1 ~ 68
	7.4 (.291)	6.4 (.25)	24 ~ 33	75 ~ 110
	9.5 (.374)	6.4 (.25)	36 ~ 62	120 ~ 200
	11.0 (.433)	6.4 (.25)	68 ~ 91	220 ~ 300
	13 (.512)	6.4 (.25)	100 ~ 130	330 ~ 390
	15.0 (.590)	9.5 (.375)	150 ~ 180	430 ~ 560
	17 (.669)	9.5 (.375)	200 ~ 240	620 ~ 750
	19.0 (.748)	9.5 (.375)	270 ~ 330	820 ~ 1000
2000V	8.0 (.315)	6.4 (.25)	1 ~ 12	1 ~ 36
	10.0 (.394)	6.4 (.25)	13 ~ 24	39 ~ 75
	12.0 (.472)	6.4 (.25)	27 ~ 36	82 ~ 110
	15.0 (.590)	9.5 (.375)	39 ~ 68	120 ~ 220
	20.0 (.787)	9.5 (.375)	75 ~ 130	240 ~ 430
3000V	10.0 (.394)	9.5 (.375)	1 ~ 16	1 ~ 56
	12.0 (.472)	9.5 (.375)	18 ~ 24	62 ~ 82
	15.0 (.590)	9.5 (.375)	27 ~ 51	91 ~ 160
	20.0 (.787)	9.5 (.375)	56 ~ 91	180 ~ 300

CERAMIC DISC CAPACITORS

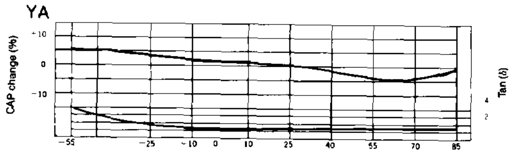
CLASS 2 (MEDIUM K DIELECTRIC)

■ SPECIFICATIONS

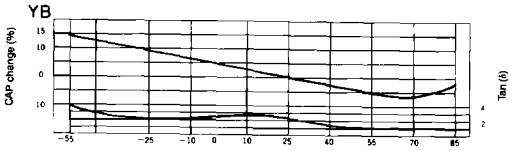
1. Standard: JIS C6422 5102 EIA RS-198C
2. Class: Class 2
3. Temperature range: −30°C ~ +85°C
4. Capacitance: Shall be within tolerance when measured at a frequency of 1KHz ± 10%, 2 Vrms at 20°C.
5. Dielectric strength: Capacitors shall withstand 2.5 times the rated working voltage for 1 - 5 seconds.
6. Insulation resistance: Value obtained will be 10,000 MΩ minimum when measured by applying the rated working voltage for 1 minute.
7. Dissipation factor (tanδ): 2.5% maximum except YF(Y5V); 5% maximum when it is measured in the same manner as capacitance.

■ PERFORMANCE

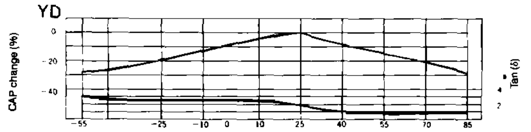
YA



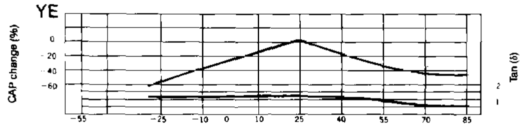
YB



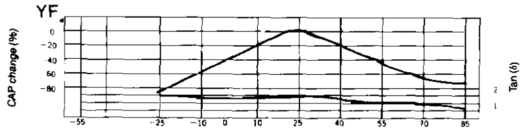
YD



YE



YF



E.I.A. STD.				JIS STD.
TEMP. RANGE (°C) −30~85	CAP. CHANGE (%)	TEMP. RANGE −55~85	CAP. CHANGE (%)	KCK MATERIAL
Y5E	±4.7	X5F	±7.5	YA
Y5F	±7.5	-	-	-
Y5P	±10	X5R	±15	YB
Y5R	±15	-	-	-
Y5S	±22	-	-	-
Y5T	+22 −33	X5T	+22 −33	YD
Y5U	+22 −56	-	-	YE
Y5V	+22 −82	-	-	YF

NOTE: EIA Designation: YA-Y5E, YB-Y5P, YD-Y5T, YE-Y5U, YF-Y5V as listed. See capacitance and dissipation vs temperature for specification.

■ MARKING

50 WVDC

DIA	4φ	5φ		6φ		7φ or above	
ITEMS	B,D,E,F	B,D,E	F	B,D,E	F	B,D,E	F
Temp. Char.		•		•		•	
Capacitance	•	•	•	•	•	•	•
Cap. Tol.				•		•	
Working Voltage	•	•	•	•	•	•	•
Brand (KCK)					•	•	•

Note: 1. Capacitance: It is shown in 3 digits (pF).
2. Cap.tol.: It will be marked by code except +80, −20%.
3. 50 W.V. Marked "−" under capacitance.
4. T.C.: Temp. range code will not be marked, cap change code only.

OTHER VOLTAGE

DIA.	6 and 7		8 and above	
ITEMS	Except Y5V	Y5V	Except Y5V	Y5V
Temp. Char.	•		•	
Capacitance	•	•	•	•
Cap. Tol.	•		•	
Working Voltage	•	•	•	•

NOTE: 1. Capacitance: is shown in 3 digits (pF).
2. Cap. tol.: it will be marked by code except +80 −20%.
3. Brand Name: will be marked as follows: 100V: 8mm and above 500V and over: all parts are marked.
4. WV not marked on 500 V parts.

■ KCK CATALOG NUMBERING SYSTEM

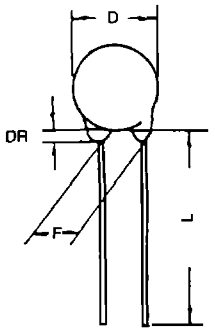
M 222 M U — RDS

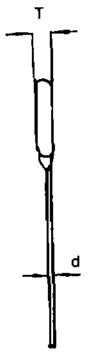
OPTIONAL LEAD STYLE/TAPING...(see page 7 & 8)
TEMPERATURE CHARACTERISTIC...50V(A=YA, B=YB, D=YD, E=YE, F=YF),
100V & OVER /EIA Lead space (E=Y5E, P=Y5P, T=Y5T, U=Y5U, V=Y5V)
TOLERANCE...K= ±10%, M= ±20%, Z= +80 −20%
CAPACITANCE... 3 digit system in pF
VOLTAGE... E=50V, H=100V, M=500V, P=1KV, S=2KV, T=3KV

CERAMIC DISC CAPACITORS

CLASS 2

■ DIMENSIONS





DIMENSIONS mm (inch)				
WVDC	DR	L	T	d
50V	2.0 MAX (.079)	25.0 MIN (1.0)	3.0 MAX (.118)	d=0.4 (.015) F=2.5 mm (.098) d=0.5 (.0196) F=5.0 mm (.197)
100V	2.0 MAX (.079)	25.0 MIN (1.0)	3.0 MAX (.118)	AWG#22 (.025)
500V	3.0 MAX (.118)	25.0 MIN (1.0)	4.0 MAX (.157)	AWG#22 (.025)
1KV	4.0 MAX (.157)	25.0 MIN (1.0)	4.5 MAX (.177)	AWG#22 (.025)
2KV	4.0 MAX (.157)	25.0 MIN (1.0)	5.0 MAX (.197)	AWG#20 (.032)
3KV	4.0 MAX (.157)	25.0 MIN (1.0)	6.0 MAX (.236)	AWG#20 (.032)

■ CAPACITANCE RANGE

	DIMENSIONS mm (inch)		CAPACITANCE RANGE (pF)				
	D MAX	F	Y5E(YA)	Y5P(YB)	Y5T(YD)	Y5U(YE)	Y5V(YF)
50V	4.0 (.157)	2.5 (.098)	100~470	100~820	1000	-	1000, 2200
	5.0 (.197)	2.5 (.098)	560~680	1000~1500	1500	2200	4700
	6.0 (.236)	2.5 (.098)	-	-	2200	-	-
	6.0 (.236)	5.0 (.197)	820~1200	1800, 2200	-	3300, 4700	10000
	7.0 (.276)	5.0 (.197)	-	2700, 3300	3300	5600, 6800	-
	8.0 (.315)	5.0 (.197)	1500~2700	3900,4700	4700	10000	22000
	9.0 (.354)	5.0 (.197)	3300	5600	6800	-	-
	9.5 (.374)	5.0 (.197)	3900	6800	-	15000	-
	10.0 (.394)	5.0 (.197)	4700, 5600	8200	10000	-	-
	12.0 (.472)	5.0 (.197)	6800	10000	-	22000	47000
100V	6.0 (.236)	6.4 (.250)	100~1000	100~1800	1000~2200	1000~3300	1000~4700
	8.0 (.315)	6.4 (.250)	1200~2200	2200~3900	3300~4700	4700, 6800	10000
	9.5 (.375)	6.4 (.250)	2700, 3300	4700, 5600	6800	10000	-
	12.0 (.472)	6.4 (.250)	4700, 5600	6800, 10000	10000	15000	22000
500V	6.0 (.236)	6.4 (.250)	100~680	100~1000	1000	1000~2200	-
	7.4 (.291)	6.4 (.250)	820	1200, 1500	1500	3300	-
	8.6 (.338)	6.4 (.250)	1000, 1200	1800, 2200	2200	4700	-
	9.5 (.374)	6.4 (.250)	1500, 1800	2700	3300	-	-
	11.0 (.433)	6.4 (.250)	2200	3300, 3900	4700	6800	-
	12.5 (.492)	6.4 (.250)	2700, 3300	4700, 5600	6800	10000	-
	14.5 (.570)	9.5 (.375)	3900, 4700	6800, 8200	10000	15000	-
	16.3 (.642)	9.5 (.375)	5600	10000	-	22000	-
	19.0 (.748)	9.5 (.375)	6800, 10000	-	15000	-	-

	DIMENSIONS mm (inch)		CAPACITANCE RANGE (pF)			
	D MAX	F	Y5E	Y5P	Y5T	Y5U
1000V	6.0 (.236)	6.4 (.250)	100~470	100~820	1000	1000, 1500
	7.4 (.291)	6.4 (.250)	560, 680	1000,1200	1500	2200
	8.6 (.339)	6.4 (.250)	820	1500	-	3300
	9.5 (.374)	6.4 (.250)	1000, 1200	1800, 2200	2200	-
	11.0 (.433)	6.4 (.250)	1500, 1800	2700, 3300	3300	4700
	12.5 (.492)	6.4 (.250)	2200	3900	4700	6800
	15.0 (.590)	9.5 (.375)	2700, 3300	4700, 5600	6800	10000
	17.0 (.669)	9.5 (.375)	3900, 4700	6800, 8200	10000	15000
	19.0 (.748)	9.5 (.375)	5600	10000	-	22000
2000V	8.0 (.315)	6.4 (.250)	-	100~390	-	-
	10.0 (.394)	6.4 (.250)	-	470~820	-	1000, 1500
	12.0 (.472)	6.4 (.250)	-	1000, 1200	-	2200
	15.0 (.590)	9.5 (.375)	-	1500~2700	-	3300, 4700
	20.0 (.787)	9.5 (.375)	-	3300~4700	-	6800, 10000
3000V	10.0 (.394)	9.5 (.375)	-	100~560	-	1000
	12.0 (.472)	9.5 (.375)	-	680, 820	-	1500
	15.0 (.590)	9.5 (.375)	-	1000~1800	-	2200, 3300
	20.0 (.787)	9.5 (.375)	-	2200~3300	-	4700, 6800

■ STANDARD CAPACITANCE TOLERANCE

Y5E-K (± 10%), Y5P-K (±10%), Y5T-M (± 20%)
Y5U-M (± 20%), Z (+80% −20%), Y5V-Z (+80%−20%)

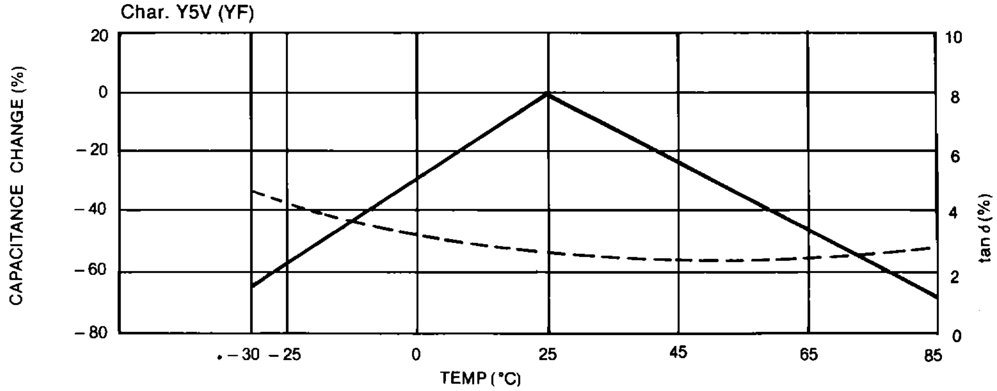
CERAMIC DISC CAPACITORS

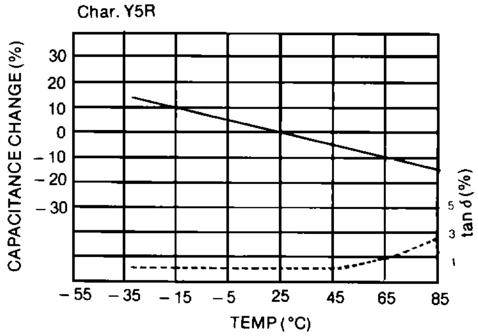
CLASS 3 (LOW VOLTAGE HIGH K DIELECTRIC)

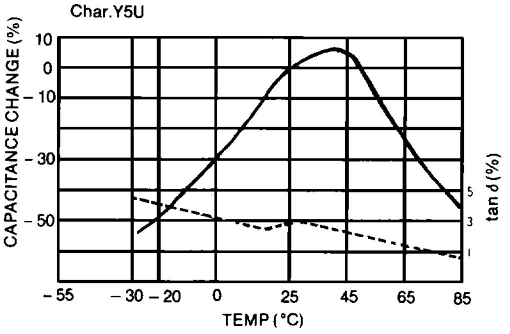
■ SPECIFICATIONS

SPECIFICATIONS		Y5R	Y5U	Y5V
1	TEMPERATURE CHARACTERISTIC	Y5: −30 ~ +85°C at 25°C R: ±15%	Y5: −30 ~ +85°C at 25°C U: +22−56%	Y5: −30 ~ +85°C at 25°C V: +22−82%
2	CAPACITOR	Not to exceed cap. tol. at 1 KHz, 1 Vrms and 25°C	Not to exceed cap. tol. at 1 KHz, .1 Vrms and 25°C	Not to exceed cap. tol. at 1 KHz, .1 Vrms and 25°C
3	DISSIPATION FACTOR	When measured in the same method as spec. 2, it shall be 1.5%	When measured in the same method as spec. 2, it shall be 7.0%	When measured in the same method as spec. 2, it shall be 5.0%
4	INSULATION RESISTANCE	1000 MΩ MIN at working voltage 1 minute.	25 V 100 MΩμF (MIN) 50 V 100 MΩμF (MIN) at working voltage 1 minute	Cap<.1 μF 1000 MΩ MIN Cap>.1μF 100 MΩμF MIN at working voltage 1 minute
5	TEST VOLTAGE	At 2.5 times of working voltage for 1 ~5 sec.	At 2.5 times of working voltage for 1 ~5 sec.	At 2.5 times of working voltage for 1 ~5 sec.

■ PERFORMANCE







■ MARKING

T.C.	Y5R				Y5U				Y5V							
WVDC	25V				25V		50V		16V			25V			50V	
ITEMS / DIA	4φ	5φ	6φ	7φ or above	7φ	9φ or above	5φ	7φ or above	4φ – 4.7φ	5.7φ 6φ	7φ or above	4φ 5φ	6φ	7φ or above	4φ 5φ	6φ or above
Temp. Coef.	•	•	•	•	•	•	•	•								
Capacitance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Cap. Tol.			•	•	•	•	•	•								
Working Voltage			•	•	•	•	•	•		•	•		•	•	•	•
Brand (KCK)				•		•		•			•			•		•

Note:
- Capacitance: It is shown in 3 digits (pF)
- 50WV: voltage indicated by marked "—" under capacitance.
- Y5V: Not marked with T.C.

■ KCK CATALOG NUMBERING SYSTEM

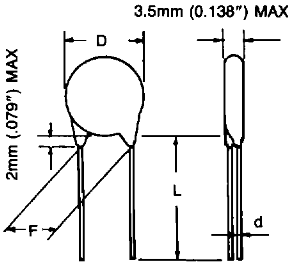
C 104 M R — J

OPTIONAL LEAD STYLE / TAPING...(See pages 7 & 8)
LEAD STYLE...No Code = SU Lead style, J=SJ Lead style
TEMPERATURE CHARACTERISTIC...R=Y5R, U=Y5U, V=Y5V
TOLERANCE...K= ±10%, M= ±20%, Z=+80−20%
CAPACITANCE...3 digit system in pF
VOLTAGE... B=16V, C=25V, E=50V

CERAMIC DISC CAPACITORS

CLASS 3

■ DIMENSIONS



SIZE	SJ	SU
L	25mm (1.0")	25mm (1.0")
d	d = .4 (.015) F = 2.5mm (.098)	AWG #22 (.65)
	d = .5 (.097) F = 5.0 (.197)	

■ SPECIFICATIONS

Y5R

DIMENSIONS mm (inch)		CAPACITANCE RANGE (pF)	
D MAX	F	16V	25V
4.0 (.157)	SJ: 2.5 (.098) SU: 6.4 (.250)	—	1,000 ~ 4,700
5.0 (.197)	SJ: 2.5 (.098) SU: 6.4 (.250)	10,000 ~ 22,000	5,600 ~ 15,000
6.0 (.236)	SJ: 5.0 (.197) SU: 6.4 (.250)	—	18,000, 22,000
7.0 (.276)	SJ: 5.0 (.197) SU: 6.4 (.250)	27,000 ~ 47,000	27,000, 33,000
8.0 (.315)	SJ: 5.0 (.197) SU: 6.4 (.250)	—	39,000, 47,000
9.0 (.354)	SJ: 5.0 (.197) SU: 6.4 (.250)	56,000 ~ 100,000	56,000, 68,000
11.0 (.433)	SJ: 5.0 (.197) SU: 6.4 (.250)	—	82,000, 100,000

Y5U

DIMENSIONS mm (inch)		CAPACITANCE RANGE (pF)	
D MAX	F	25V	50V
5.0 (.197)	SJ: 2.5 (.098) SU: 6.4 (.250)	10,000	10,000
6.3 (.248)	SJ: 5.0 (.197) SU: 6.4 (.250)	22,000	—
7 (.276)	SJ: 5.0 (.197) SU: 6.4 (.250)	47,000	22,000
9.0 (.354)	SJ: 5.0 (.197) SU: 6.4 (.250)	100,000	47,000
10 (.393)	SJ: 5.0 (.197) SU: 6.4 (.250)	—	—
12.0 (.472)	SJ: 5.0 (.197) SU: 6.4 (.250)	220,000	100,000

Y5V

DIMENSIONS mm (inch)		CAPACITANCE RANGE (pF)		
D MAX	F	16V	25V	50V
4.0 (.157)	SJ: 2.5 (.098) SU: 6.4 (.250)	22,000	10,000	10,000
5.0 (.197)	SJ: 2.5 (.098) SU: 6.4 (.250)	33,000, 47,000	22,000, 33,000	22,000
6.0 (.236)	SJ: 5.0 (.197) SU: 6.4 (.250)	68,000	47,000	33,000
6.5 (.256)	SJ: 5.0 (.197) SU: 6.4 (.250)	100,000	68,000	47,000
7.5 (.295)	SJ: 5.0 (.197) SU: 6.4 (.250)	—	100,000	—
8.5 (.334)	SJ: 5.0 (.197) SU: 6.4 (.250)	—	—	100,000
10.0 (.393)	SJ: 5.0 (.197) SU: 6.4 (.250)	220,000	—	—
11.0 (.433)	SJ: 5.0 (.197) SU: 6.4 (.250)	—	220,000	150,000
13 (.512)	—	—	—	220,000

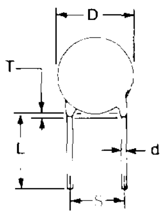
■ STANDARD CAPACITANCE TOLERANCE

Y5R-K(±10%), M(±20%), Y5U-M(±20%), Z(+80% –20%), Y5V-Z(+80% –20%)

CERAMIC DISC CAPACITORS

■ SPECIAL LEAD STYLE SPECIFICATIONS

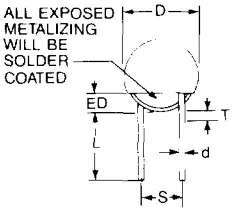
TYPE CU or CJ



"CU" Type: 100V to 1KV, Class 3
Lead Length (L): 5.0 ± .8mm (.196 ± .031)
Lead Space (S): 6.35 ± .8mm (.250 ± .031) for under dia max 13.0mm (.492)
9.5 ± .8mm (.375 ± .031) for over dia max 13.5mm (.531)
Leads (d): 22 gauge (AWG). Durez on Leads (T): MAX .8mm (.031)

"CJ" Type: 50V to 1KV, Class 3
Lead Length (L): 5.0± .8mm (.196 ± .031)
Lead Space (S): 5.0 ± .8mm (.196 ± .031) for under dia max 13.0mm (.492)
10.0 ± .8mm (.0393 ± .031) for over dia max 13.5mm (.531)
Leads (d): 22 gauge (AWG). Durez on Leads (T): MAX .8mm (.031)
Note: Ceramic may be visible, but electrode should be covered by Durez coating.

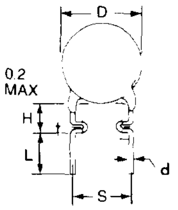
TYPE BU or BJ



"BU" Type: 500V Only
Lead Length (L): 5 ± .8mm (.196 ± .031)
Lead Space (S): 6.35 ± .8mm (.250 ± .031) for under dia max 13.0mm (.492)
9.5 ± .8mm (.375 ± .031) for over dia max 13.5mm (.531)
Leads (d): 22 gauge (AWG). Durez on Lead: No Durez Below Tangent Line
ED: 2.0mm (.079) MAX Electrode may be exposed

"BJ" Type: 500V Only
Lead Length (L): 5.0± .8mm (.196 ± .031)
Lead Space (S): 5.0 ± .8mm (.196 ± .031) for under dia max 13.0mm (.492)
10.0 ± .8mm (.393 ± .031) for over dia max 13.5mm (.531)
Leads (d): 22 gauge (AWG). Durez on Lead: No Durez Below Tangent Line
ED: 2.0mm (.079) MAX Electrode may be exposed

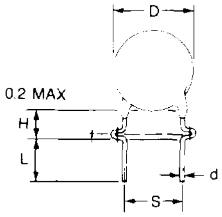
TYPE UU or UJ



"UU" Type: 100V to 2KV, Class 3
Lead Length (L): 5.0 ± .8mm (.196 ± .031) (H): 5.0mm (.196) MAX
Lead Space (S): 6.35 ± .8mm (.250 ± .031) for under dia max 13.0mm (.492) except 2KV
9.5 ± .8mm (.375 ± .031) for over dia max 13.5mm (.531) and all 2KV
Leads (d): 22 gauge (AWG) except 2KV which is 20 gauge
Durez on Lead: No Durez Below Center of Kink

"UJ" Type: 50V to 2KV, Class 3
Lead Length (L): 5.0 ± .8mm (.196 ± .031) (H): 5.0mm (.196) MAX
Lead Space (S): 5.0 ± .8mm (.196 ± .031) for under dia max 13.0mm (.492) except 2KV
10.0 ± .8mm (.393 ± .031) for over dia max 13.5mm (.531) and all 2KV
Leads (d): 22 gauge (AWG) except 2KV which is 20 gauge
Durez on Leads: No Durez Below Center of Kink

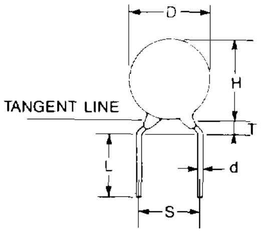
TYPE RU or RJ



"RU" Type: 100V to 3KV, Class 3
Lead Length (L): 5.0 ± .8mm (.196 ± .031) (H) = 5.0mm (.196) MAX
Lead Space (S): 6.35 ± .8mm (.250 ± .031) for under dia max 13.0mm (.492) except 2KV and 3KV
9.5 ± .8mm (.375 ± .031) for over dia max 13.5mm (.531), all 2KV and 3KV
Leads (d): 22 gauge (AWG) except 2KV and 3KV which is 20 gauge
Durez on Leads: No Durez Below Center of Kink

"RJ" Type: 50V to 3KV, Class 3
Lead Length (L): 5.0± .8mm (.196 ± .031) (H): 5.0mm (.196) MAX
Lead Space (S): 5.0 ± .8mm (.196 ± .031) for under dia max 13.0mm (.492) except 2KV and 3KV
10.0 ± .8mm (.393 ± .031) for over dia max 13.5mm (.531), all 2KV and 3KV
Leads (d): 22 gauge (AWG) except 2KV and 3KV which is 20 gauge
Durez on Lead: No Durez Below Center of Kink

TYPE HU or HJ



"HU" Type: 100V to 1KV, Class 3
Lead Length (L): 5.0 ± .8mm (.196 ± .031)
Lead Space (S): 6.35 ± .8mm (.250 ± .031) for under dia max 13.0mm (.492)
9.5 ± .8mm (.375 ± .031) for over dia max 13.5mm (.531)
Leads (d): 22 gauge (AWG)
Seated Height to Tangent Line (T): 1.5mm (.059) MAX
Durez on Lead: No Durez Below Bent Lead ("T" Point)

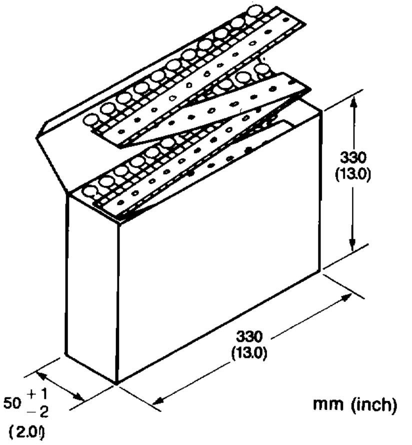
"HJ" Type: 50V to 1KV, Class 3
Lead Length (L): 5.0± .8mm (.196 ± .031)
Lead Space (S): 5.0 ± .8mm (.196 ± .031) for under dia max 13.0mm (.492)
10.0 ± .8mm (.393 ± .031) for over dia max 13.5mm (.531)
Leads (d): 22 gauge (AWG)
Seated Height to Tangent Line (T): 1.5mm (.059) MAX
Durez on Lead: No Durez Below Bent Lead ("T" Point)

D must be <5mm

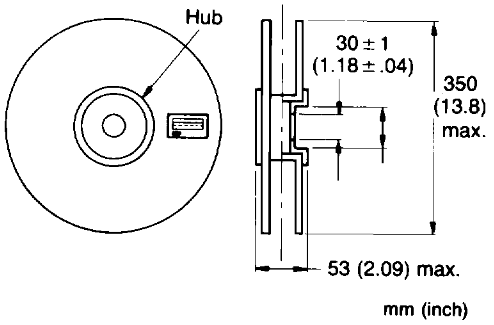
CERAMIC DISC CAPACITORS

■ STANDARD PACKING QUANTITY

RC TYPE (Ammo Package)



RD TYPE (Reel Package)



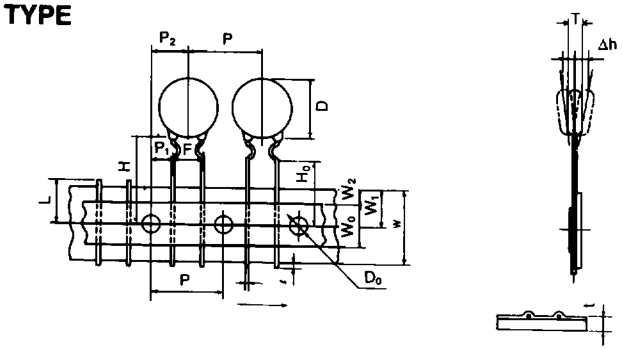
PACKAGE	QUANTITY
Reel Pack (RD)	2500 pcs. Dia. less than 7.5ϕ 2000 pcs. Dia. over 8ϕ
Ammo Pack (RC)	2000 pcs. All voltages
Bulk	1000 pcs/bag Dia. from 4ϕ to 9ϕ 500 pcs/bag Dia. over 9ϕ

NOTE: ALL DIMENSIONS IN MM UNLESS OTHERWISE INDICATED.

TAPE NOT AVAILABLE FOR 2KV AND 3KV PARTS.

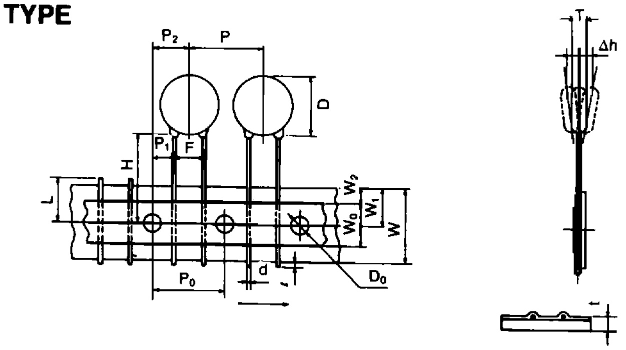
■ TAPING SPECIFICATIONS

T TYPE



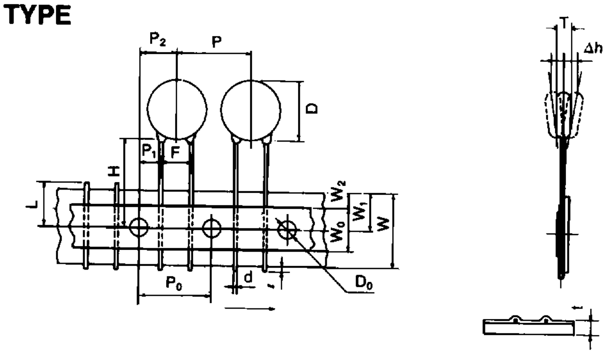
CODE	DIMENSIONS	CODE	DIMENSIONS
P	12.7 ± 1.0	H_0	16.0 ± .5
P_0	12.7 ± .3	T	2.0 MAX
P_1	3.85 ± .7	D_0	4.0 ± .2
P_2	6.35 ± 1.3	t	.7 ± .2
W	18.0 +1.0 −.5	Δh	0 ± 2.0
W_0	5 MIN	F	5.0 +.8 −.2
W_1	9.0 ± .5	d	.6 +.06 −.05
W_2	3.0 MAX	L	11.0 MAX
H	20.0 +1.5 −1.0	D	12.0 ϕ MAX

S TYPE



CODE	DIMENSIONS	CODE	DIMENSIONS
P	12.7 ± 1.0	T	2.0 MAX
P_0	12.7 ± .3	D_0	4.0 ± .2
P_1	3.85 ± .7	t	.7 ± .2
P_2	6.35 ± 1.3	Δh	0 ± 2.0
W	18.0 +1.0 −.5	F	5.0 +.8 −.2
W_0	5 MIN	d	.6 +.06 −.05
W_1	9.0 ± .5	L	11.0 MAX
W_2	3.0 MAX	D	12.0 ϕ MAX
H	20.0 ± .75		

SP TYPE



CODE	DIMENSIONS	CODE	DIMENSIONS
P	12.7 ± 1.0	T	2.0 MAX
P_0	12.7 ± .3	D_0	4.0 ± .2
P_1	3.85 ± .7	t	.7 ± .2
P_2	6.35 ± 1.3	Δh	0 ± 2.0
W	18.0 +1.0 −.5	F	5.0 +.8 −.2
W_0	5 MIN	d	.6 +.06 −.05
W_1	9.0 ± .5	L	11.0 MAX
W_2	3.0 MAX	D	12.0 ϕ MAX
H	16.0 ± .5		

■ KCK CATALOG NUMBERING SYSTEM

— RDS

LEAD STYLE TAPING SPECIFICATION...T TYPE = KINK LEADS, S/SP = STRAIGHT LEADS

PACKAGING TYPE...RC = AMMO PACKAGE, RD = REEL PACKAGE